

APOLLO/SOYUZ TEST PROJECT (ASTP) DIRECTIVE NO. 1

TO: DISTRIBUTION

FROM: *Russ A. Pittman*  
APOLLO PROGRAM DIRECTOR  
OCT 27 1972

SUBJECT: ASTP Directives and Documents, Control Milestones,  
Flight Hardware and Major Operational and Test Facility  
Assignments

OFFICE OF PRIME RESPONSIBILITY (OPR): Apollo Program Budget  
and Control (MAP)

- REFERENCES: (a) Letter from M/Associate Administrator for  
Manned Space Flight (with concurrence by AD)  
to Directors, KSC, MSFC, MSC, subj: "Apollo/  
Soyuz Test Project," June 17, 1972
- (b) Proposed Apollo/Soyuz Test Project Approval  
Document (PAD)
- (c) Apollo Program Directive #34C, Apollo CCB  
Controls and Requirements

I. PURPOSE

This directive defines the ASTP directives and documents, control milestones, flight hardware and major operational and test facility assignments to be used as a baseline for detailed project planning. Responsibilities of Center Program Managers are also established.

II. ASTP DIRECTIVES AND DOCUMENTS

Reference (a) established the Apollo Program Director as Director of the Apollo/Soyuz Test Project and specified that the Apollo management system would be used. The proposed ASTP Project Approval Document (Reference (b)) further defines management responsibilities. Attachment A lists those Program Directives and documents which are applicable to the ASTP. As noted on the list, several Apollo Program Directives are in the process of being rewritten to the specific requirements of ASTP. In general, the Apollo Program Directives and documents are directly usable on ASTP when the references to the lunar mission and Apollo hardware not being used are deleted.

III. CONTROL MILESTONES

Attachment B designates certain major or key program events as control milestones. Control milestones are those milestones which represent US/USSR or intercenter programming events, significant development tests, tests which constrain flight missions, deliveries of stages, modules, and ground support equipment and software to KSC. Changes to these milestones require Apollo Program Director approval.

IV. FLIGHT HARDWARE ASSIGNMENTS

The major flight hardware assignments for ASTP are presented in reference (b). Attachment C lists detailed flight hardware assignments. Changes to this list must be approved by the Apollo Program Director.

V. MAJOR OPERATIONAL AND TEST FACILITY ASSIGNMENTS

Attachment D lists the major operational and test facilities required by ASTP. Deletions or additions to this list must be approved by the Apollo Program Director.

VI. RESPONSIBILITIES

Center Program Managers are responsible for the implementation of the requirements of this directive and for requesting changes to the control milestones and hardware assignments under their management responsibility. Center Program Managers will notify the Program Director immediately whenever a situation exists or is anticipated that will impact or potentially impact controlled schedules.

ATTACHMENTS

- A - List of ASTP Program Directives and Documents
- B - ASTP Control Milestones
- C - Detailed Flight Hardware Assignments
- D - KSC, MSC, MSFC - Major Operational and Test Facility Assignments

ASTP PROGRAM DIRECTIVES AND DOCUMENTS

The following directives and documents are applicable to the Apollo/Soyuz Test Project. Apollo Program Directives (APD Numbers) listed are applicable in their present form. Those indicated by an asterisk will be revised to the specific requirements of ASTP:

<u>DIRECTIVE NO.</u>	<u>TITLE</u>	<u>DATE</u>
ASTP-1	ASTP Directives & Documents, Control Milestones, Flight Hardware & Major Operational & Test Facility Assignments	
ASTP-2	ASTP Coordination with the Office of International Affairs	
APD-6B	*Key Inspection, Review & Certification Checkpoints & Their Documentation	Dec 2, 1968
APD-8B	*Apollo Flight Readiness Review	Jun 16, 1971
APD-19C	Apollo Flight Evaluation Reporting Requirements	Mar 4, 1970
APD-21A	Monthly Weight & Performance Data Submittal Requirements	Jul 21, 1971
APD-23	Saturn/Apollo Tank & Fluid Materials Testing Requirements	Dec 6, 1966
APD-26B	Preparation of Test & Checkout Plans & Procedures at KSC	Dec 6, 1967
	Addendum #1 to APD 26B	Dec 8, 1970
APD-31A	Apollo Systems Safety Program Requirements	Nov 5, 1970
APD-32D	Quality & Reliability Assurance Auditing	Oct 7, 1970
APD-33A	Center Responsibilities in the Apollo Program	Aug 5, 1968
	Addendum #1 to 33A	Oct 5, 1972

<u>DIRECTIVE NO.</u>	<u>TITLE</u>	<u>DATE</u>
APD-34C	Apollo Program CCB Controls & Requirements	Nov 6, 1969
APD-36	Apollo Program Equipment Cannibalization Control	Jan 8, 1968
APD-39	General Standard for Preservation Packaging, Packing, Marking, Handling, & Shipping of Apollo Space Vehicle Components, Parts, & Associated Equipment	Apr 22, 1968
APD-40B	Launch Critical Spares Management	Jun 25, 1971
APD-43A	Apollo Mission Implementation Plan	Dec 2, 1969
APD-44A	Apollo Program Nonconformance Reporting & Corrective Action	May 27, 1969
APD-46B	Apollo Mission Rules	Oct 15, 1970
APD-47	Apollo Inter-Center Interface Management	Dec 16, 1968
APD-48	Apollo Postflight Crew Debriefings	Jan 28, 1969
APD-55A	Technical Investigations	Dec 30, 1970
APD-56	Technical Support for Resolving Significant Technical Problems from Space Vehicle Rollout through Mission Completion	Nov 12, 1970
<u>DOCUMENT NO.</u>		
NHB 8080.1A	Apollo Test Requirements	Jun 1971
SE 005-001	*Rev C Apollo Program Specification J Missions	Jun 28, 1971
NHB 8040.2	Apollo Configuration Management Manual	Jan 1970
NHB 5300.2	Apollo Metrology Requirements Manual	Dec 1965
	Mission Implementation Plan	(Prepared for each mission)
	Program Support Requirements Document	(Prepared for each mission)

NASA R&QA DOCUMENTS

DOCUMENT NO.	TITLE	
NHB 5300.4 (1A)	Reliability Program Provisions for Aeronautical & Space System Contractors	Apr 1970
NHB 5300.4 (1B)	Quality Program Provisions for Aeronautical & Space System Contractors	Apr 1969
NHB 5300.4 (1C)	Inspection System Provisions for Aeronautical & Space System Materials, Parts, Components & Services	July 1971
NHB 5300.4 (2B)	Quality Assurance Provisions for Government Agencies	Nov 1971
NHB 5300.4 (3A)	Requirements for Soldered Electrical Connections	May 1968
NHB 5300.4 (3C)	Line Certification Requirements for Microcircuits	May 1971
NHB 5300.4 (3D)	Test Methods & Procedures for Micro-circuit Line Certification	May 1971
NHB 5300.4 (3E)	Radiograph Inspection for Micro-circuits	Oct 1971
NHB 5300.4 (3F)	Qualified Products Lists Requirements for Microcircuits	Jun 1972
NHB 5330.7	Management of Government Quality Assurance Functions for Supplier Operations	Apr 1966

# APOLLO / SOYUZ TEST PROJECT CONTROL MILESTONES

FINAL DESIGN REVIEWS	PDR CDR	10/31 ▼	4/30 ▼			
NASA/US-NAS/USSR FINAL JOINT REVIEWS	DESIGN ACCEPTANCE EQUIPMENT ACCEPTANCE REVIEW FRR		12/1 ▼	11/1 ▼	5/1 ▼	
QUAL TEST*	DOCK MODULE DOCK SYSTEM			4/1 ▼ 8/1 (THERMAL VAC.) 1/4 ▼ 8/9 ▼		
HARDWARE DELIVERY KSC	SA 210 (AVAILABLE TO SHIP) CSM-111 DOCK MODULE DOCK SYSTEM		11/1 ▼	2/1 ▼ 8/1 ▼	1/3 ▼	
LAUNCH					JULY ■	
* INCLUDES PREPARATION TIME		1972	1973	1974	1975	

20 SEP 1972

ATTACHMENT B

DETAILED FLIGHT HARDWARE ASSIGNMENTS

General

This attachment includes the flight hardware assignment summary for the ASTP mission.

The prelaunch checkout and launch schedule for ASTP are based on the project policy that flight hardware will be delivered to KSC on the date specified in Attachment B of this directive and will arrive with all manufacturing work and predelivery testing completed, unless specifically noted otherwise. The requirements of APD 34C will apply to all hardware which does not meet this requirement (Reference (c)).

CSM's BLK II

CSM 111

CSM 119 (a)

ADAPTERS

SLA TRUSS #2

SLA Truss #3 (b)

DOCKING MODULES

DMOD # 2

DMOD # 1 (Refurbished after use as thermal vacuum test module) (b)

DOCKING SYSTEMS

DMEC #3P and 3A

DMEC #4A (b)

SLA's

SLA #18

SLA #25 (a)

- (a) Backup (Presently assigned for Skylab rescue)
- (b) Backup

G&N

G&N //215

G&N //213 (a)

EMU

Suits (Buy 9, Refurbish 6)

LAUNCH VEHICLES

S-IB (210, 209 (a))

S-IVB (210, 209 (a))

S-IU (210, 209 (a))

- (a) Backup (Presently assigned for Skylab rescue)
- (b) Backup



MAJOR OPERATIONAL AND TEST FACILITY ASSIGNMENTS

The following list of major facilities will be required to be in an operational status in the time periods indicated.

<u>O&amp;C BUILDING</u>	<u>KSC</u>	<u>NO. REQD.</u>	<u>PERIOD</u>
Altitude Chamber		1	
CSM			Aug 74 - Jul 75
Docking Module			Oct 74 - Jul 75
High Bay		1	Sep 74 - Jul 75
ACE Stations		2	Sep 74 - Jul 75
<u>LC-39</u>			
Low Bay, S-IVB Cell		1	Oct 74 - Jul 75
High Bay 1		1	Sep 74 - Jul 75
VAB Facilities		1	Sep 74 - Jul 75
Firing Room			
Primary-FR#3		1	Feb 74 - Jul 75
Backup		1	Sep 74 - Jul 75
Training Room #4 (DEE-6 Computer Area)		1	Feb 74 - Jul 75
Crawlers		2	Feb 75 - Jul 75
LUT-1		1	Sep 74 - Jul 75
Mobile Service Structure		1	Feb 75 - Jul 75
PAD B		1	Feb 74 - Jul 75

MSC

<u>O&amp;C BUILDING</u>	<u>NO. REQD.</u>	<u>PERIOD</u>
Thermal Vac Facility	1	Apr 74 - Jul 74
Eight Foot Vac Chamber (ECLSS Breadboard)	1	Nov 72 - Oct 73
Acoustic Test Facility	1	Feb 74 - May 74
Service Module RCS Breadboard	1	Jan 73 - Sep 73
Dynamic Docking Test Facility	1	Oct 73 - Aug 74
Mission Simulators		
Command Module	1	Jan 74 - Jul 75
Docking Module	1	Apr 74 - Jul 75
ACE Station (Bldg. 32, Space Environmental Simulation Lab)	1	May 74 - Oct 74
Mission Operations Control Room	1	May 74 - Jul 75
Telemetry & Communications Systems Div. Facilities	1	Oct 72 - Apr 74

MSFC

Saturn IB Systems Development Facility (SDF)	1	May 74 - Jul 75
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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
JOHN F. KENNEDY SPACE CENTER  
KENNEDY SPACE CENTER, FLORIDA 32899

REPLY TO  
ATTN OF: AA-SVO-3(72-11-8)

NOV 20 1972

MEMORANDUM

TO: Distribution

FROM: AA/Manager, Apollo-SkyLab Programs

SUBJECT: Apollo-Soyuz Test Project (ASTP) Directive No. 1, dated  
October 27, 1972, Subject: ASTP Directives and Documents,  
Control Milestones, Flight Hardware and Major Operational  
and Test Facility Assignments

OMSF Apollo-Soyuz Test Project (ASTP) Directive No. 1 has been received by this office, and a copy is transmitted for your information. Implementation of the directive will be as noted in the attached briefing note.

Robert C. Hock

Enclosures

1. ASTP Program Directive No. 1
2. Briefing Note to Dr. Debus

Distribution:  
Apollo-SkyLab Distribution S

Dr. Debus:

NOV 2 1972

SUBJECT: Apollo-Soyuz Test Project (ASTP) Directive No. 1

The directive entitled "ASTP Directives and Documents, Control Milestones, Flight Hardware and Major Operational and Test Facility Assignments," dated October 27, 1972, establishes baselines in these areas for detailed project planning and also establishes the responsibilities of Center Program Manager.

The directive contains the Apollo Program Directives and NASA documents which are applicable in their present form to ASTP and those that will require revision. The Control Milestones are based on the project policy that flight hardware will be delivered to KSC with all manufacturing work and predelivery testing completed. A listing of major facilities and time periods for them to be in an operational status is included. A review of the preliminary version of the directive was made by KSC Directorates and no significant problems were noted.

Implementation of ASTP Directive No. 1 is planned by issuing new directives only at the top level, similar to those in Skylab, namely:

- a. KSC ASTP Documentation Plan
- b. KSC ASTP Program Management Plan
- c. Program Mission and Schedules Baseline
- d. KSC Operations Plan for ASTP

It is expected that lower level documents will need only minor revisions, if any.

The new directive will be given the usual distribution to the second level directorates, and those individuals having primary interest in the program.

  
Robert C. Hock